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511,836

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## COMPLETE SPECIFICATION

### A Process for Preparing an Antiseptic Solution

I, THOMAS EDWARD THORPE, a British Subject, of Woodstock Factory, Woodstock Road, Shepherds Bush, London, W.12, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to a method of preparing an improved solution of iodine for antiseptic purposes.

It is well known that carbon tetrachloride is a very effective solvent for grease and I have found that if iodine is dissolved in carbon tetrachloride in a particular proportion the resultant solution has improved antiseptic properties over the ordinary alcohol-potassium-iodide iodine solution known as tincture of iodine. The carbon tetrachloride removes some of the natural grease from the surface of the skin and with it any adherent dirt, which prepares a wounded place on the skin for the reception of the iodine, but it is necessary, having regard to the viscosity and volatility of the carbon tetrachloride to employ such a solution that the iodine left on the wound when a coating of the solution is painted on and allowed to evaporate, will be sufficient to have the necessary antiseptic action but not sufficient to damage the tissue.

According to the present invention, therefore, a process for preparing an antiseptic solution consists in dissolving iodine in carbon tetrachloride in a proportion of 0.5%.

An important advantage of the solutions obtained according to the invention is that potassium iodide is not required and it has been found that the iodine without the presence of potassium iodide has an improved action as an antiseptic.

It has been found that the solution prepared in accordance with the invention when applied to a wound does not produce the smarting pain which is characteristic of the iodine-potassium iodide-alcohol solution.

It has been stated in the British Medical Journal, 1930, Volume 2, page 101, that for the purpose of skin preparation preliminary to operation a 1% solu-

tion of iodine in carbon-tetrachloride has been adopted with success and added that over a period of some months only one patient has shown any trace of skin irritation. It could not have been predicted from the known properties of carbon-tetrachloride that the new solution would be analgesic and the painlessness disappears if the proportion of iodine is increased beyond 1% whilst below  $\frac{1}{2}$ % the antiseptic results are generally insufficient. Nor could it have been predicted that the choice of carbon-tetrachloride as a solvent would enable iodine to act effectively in so small a proportion, as  $\frac{1}{2}$ %. Iodine is an expensive ingredient and it is desirable to use the minimum quantity of iodine consistent with effective antiseptic action. Furthermore the carbon tetrachloride has a powerful action in removing grease and dirt which is not obtained when an aqueous alcohol solution is employed, so that the preparation according to the invention is particularly useful in the treatment of small wounds received by mechanics engaged on oily metal work.

In carrying out the process of the invention, the iodine is stirred into the carbon tetrachloride, conveniently in a glass vessel as the metals other than silver, gold and platinum are readily attacked by the solution. Conveniently also there may be dissolved in the carbon tetrachloride an essential oil such as eucalyptus or terebinte in order to disguise the smell of the carbon tetrachloride and to aid in the dissolving of tar, and heavy oils and to reduce the rate of evaporation of the carbon tetrachloride solvent.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A process for preparing an antiseptic solution which consists in dissolving in carbon tetrachloride 0.5% of iodine for the purpose described.

2. A process as claimed in Claim 1 wherein there is also added a small proportion of an essential oil, for example, eucalyptus.

[Price 1/-]

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3. An antiseptic solution when prepared or produced by the special process of manufacture as claimed in Claim 1 or Claim 2.

Dated this 15th day of October, 1937.

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